A2 Sub B'

storing the result in the cache, by updating an entry if present and adding an entry if not present in the cache.

A3 Sub B'

(Amended) 5. An availability system used for a travel planning system comprises:

a cache including a plurality of entries of availability information of seats for a mode of transportation; and

a cache manager that manages a quality level of entry information in the cache.

A4 Sub B'

(Amended) 14. The availability system of claim 13 wherein the predictor or model is based on a deterministic, probabilistic, or statistical classifier or predictor, databases or cache of historical data or previously predicted information, simulations of various availability systems and actual availability data sources.

A5 Sub B'

(Amended) 16. The availability system of claim 13 wherein the predictor used to guide the cache manager operation predicts the rate of change or time of change of the seat availability.

Please add new claims 19-32 as follows:

Sub B'

A6

19. A computer program product residing on a computer readable medium for managing a cache for predicting availability information for a mode of transportation, comprises instructions to cause a computer to:

determine whether a stored answer in the cache is stale, based on a determined criterion for availability information; and,

update the stored answer in the cache by sending an availability query to an source of availability information.

20. The computer program product of claim 19 further comprising instructions to:

monitor availability queries made to the cache by a travel planning system to determine which flights, sets of flights, the flights for a certain day, date, or market have a high demand for availability information.

21. The computer program product of claim 19 further comprising instructions to:

schedule a list where a list of keys of entries to update or add and for each entry on the list in the order given,

submit a query to the availability source; and

store the result in the cache, by updating an entry if present and adding an entry if not present in the cache.

22. The computer program product of claim 19 further comprising instructions to:

schedule multiple lists, by processes one entry from each list by a round-robin polling through the lists in turn until one entry has been processed from each list, and

return to the first list to process the next entry;

generate an entry for each entry on the list in the order given, by

submit a query to the availability source; and

store the result in the cache, by updating an entry if present and adding an entry if not present in the cache.

A6

23. A computer program product for determining seat availability in a travel planning system comprises instructions to cause a computer to:

cache entries of availability information of seats for a mode of transportation; and

manage entry information in the cache to determine when an entry in the cache should be added, deleted or modified.

24. The computer program product of claim 23 wherein entries to be added, modified, or deleted are obtained by asynchronous notification from external systems.

25. The computer program product of claim 24 wherein entries to be added, modified, or deleted are taken from a list or multiple lists of predetermined entries.

26. The computer program product of claim 25 wherein the entries in the list include predetermined orderings or priorities.

27. The computer program product of claim 24 wherein entries to be added, modified, or deleted are determined from the distribution or nature of availability queries posed to the cache.

28. The computer program product of claim 24 wherein entries to be added, modified, or deleted are determined by using a predictor or model of availability queries which are likely to be posed or are likely to be useful in the future.

29. The computer program product of claim 28 wherein the predictor or model of availability queries likely to be posed is based on a at least one of deterministic, probabilistic, statistical classifier or predictor, databases, cache of historical data or previously predicted simulations of availability systems and actual availability data sources.

30. A method for managing availability information for a seat on an airline, comprises:

determining, which entries to add, delete, or update in the cache by monitoring and examining availability queries made to the cache by a travel planning system to determine which flights have a high demand for availability information;

updating entries in the cache based on if a flight is determined to have a higher than average or higher than expected demand.

31. The method of claim 39 wherein flights included sets flights, such as the flights for a certain day, date, or market that added to the cache earlier than it would have been otherwise, or it might be updated more often to make sure the information is fresh.

32. The method of claim 30 wherein further comprising:

observing and parsing queries made to the cache by a travel planning system; and

updating a list of entries queried along with a frequency count tallying the number of times each entry has been accessed; and

based on frequency of access determining whether the entry should be added or deleted from the cache, whether priority should be raised or lowered to freshen the data for that entry from the availability source more or less often.